

Standard Enhancement and Discrepancy System (SEDS)  
Procedures for ISO TC184/SC4  
Draft - 19 April, 1995

A. Purpose:

The Standard Enhancement and Discrepancy System (SEDS) is an information and process tool to service users of the International Organisation for Standardisation (ISO) 10303 parts. SEDS may provide input into the next edition of an ISO 10303 part while assisting in change management. The ISO TC184/SC4 Secretariat is responsible for the implementation and maintenance of SEDS reporting.

B. Background:

STEP (Standard for the Exchange of Product Model Data) is the familiar name for the International Standard (IS) ISO 10303, "Industrial Automation Systems and Integration - Product Data Representation and Exchange". Given the complexity of developing a product data exchange standard, the IS may have discrepancies discovered as one begins to build implementations, as well as a need for additional enhancements to the existing IS parts. The Standard Enhancement and Discrepancy System (SEDS) was created to equitably process such discrepancies or enhancements. ISO TC184/SC4, the parent organization for STEP development, has requested SEDS be put into place to handle rapid identification and correction of discrepancies and ambiguities within the STEP standard and to track future enhancements to the standard. To this end a SEDS Coordinator is necessary to carry out the functions described herein. The SEDS Coordinator appointment is the responsibility of the ISO TC184/SC4 Secretariat.

C. Procedures:

1. Maintenance and Interpretation of IS 10303 Parts

The following procedures will be applied to ISO 10303 parts for which proper implementation is dependent on the careful but rapid promulgation of errata, technical corrigenda, or amendments as discrepancies are detected in an IS 10303 part.<sup>1</sup>

2. Generation and Submission of a SEDS Report

The generation and handling of a SEDS Report is outlined in Figure 1.

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<sup>1</sup>These procedures are based on those procedures developed by TC184/SC5/WG2 and approved by the ISO Technical Management Board.



## 2.1 Generation of a SEDS Report

Any user of an international standard (IS) part of ISO 10303 who detects a fault that requires immediate attention may generate a SEDS Report. A user may also use the SEDS process to suggest a future enhancement to an IS. A separate Report shall be filed for each discrepancy or suggested enhancement. A copy of a SEDS Report form may be obtained from the ISO TC184/SC4 Secretariat or electronically via the repository noted in the Addendum to this document.

In addition, a SEDS Report may be generated by any national body for any ballot comment against a Draft International Standard (DIS) that was deferred for future consideration and still considered an outstanding issue by that national body.

Reports should be limited to areas of ambiguity, inadequacies in definitions, omissions of data, clarification of text, and technical errors. It is not the intention of the SEDS process to address minor editorial changes through a ISO TC184/SC4 ballot process; however, provision for handling minor editorial changes is provided in 3.1.1.

Each SEDS Report will be divided into five sections:

1. General Information (to be completed by the SEDS Coordinator)
2. Enhancement and Discrepancy Information (to be completed by the person submitting the Report)
3. Response Information (to be completed by the SEDS Team Leader)
4. Follow-Up Information (to be completed by the SEDS Coordinator)
5. Filing Information (directions for filing)

To initiate a SEDS Report, the user completes the Enhancement and Discrepancy Information Section (Section 2) of the SEDS Report (See annexes A & B). The Report shall be in ASCII text format and not in a specific word processing format.

## 2.2 Submission of SEDS Report

To submit a SEDS Report, the user sends it to the ISO TC184/SC4 Secretariat via his/her national body. The Report may be sent by electronic mail (email) or by regular mail accompanied by an ASCII electronic version of the Report. Upon receipt of a SEDS Report, the Secretariat immediately forwards the original of all information to the SEDS Coordinator, retaining a copy for the

**DRAFT/19-4-95, N308**

Secretariat. The SEDS Coordinator completes the General Information Section (Section 1) of the Report and logs that information into the repository. At this point a SEDS Report Issue number is assigned by the SEDS Coordinator as the identifier to be used throughout the SEDS process.

### 3. Processing SEDS Reports

#### 3.1 Circulation of a SEDS Report

The circulation of a SEDS Report is determined by the nature of the Report itself. There are four different types of SEDS Reports anticipated:

- a. Minor editorial changes which can be assumed to have no consequences in the application of the IS part, e.g., typographical errors;
- b. Technical corrigendum: a technical error or ambiguity which could lead to incorrect or unsafe application of the IS part, or for information that has become outdated since publication of the IS part;
- c. Amendment: alters and/or adds to previously agreed technical provisions in an existing IS, for example, an enhancement to an IS part; or
- d. Implementors' agreement: [the description of such is To Be Determined; however, the result of an implementors' agreement could conclude as a need for an amendment (New Work Item)].

##### 3.1.1. Processing a SEDS Report for Minor Editorial Changes

In consultation with the ISO TC184/SC4 Chair, TC184/SC4 Secretariat, and the TC184/SC4 ISO 10303 Project Leader as appropriate, the SEDS Coordinator determines whether the SEDS Report requests only a minor editorial change. For such changes, the SEDS Coordinator notifies the ISO TC184/SC4 Secretariat who posts the correction in the repository. The SEDS Report is closed, and the Secretariat is responsible to ensure such changes are made to the next revision of the IS part. This posting and closure of the SEDS Report is noted in the repository with the prefix 'c' (cxxx.txt).

##### 3.1.2. Processing a SEDS Report for Technical Corrigendum or Amendment

In consultation with the ISO TC184/SC4 Chair, TC184/SC4 ISO 10303 Project Leader(s), and TC184/SC4 Secretariat as appropriate, the SEDS Coordinator appoints a SEDS Team and a SEDS Team Leader to respond to each SEDS Report. The SEDS Team shall consist of at

DRAFT/19-4-95, N308

least three members. The SEDS Team Leader shall be the appropriate project leader, if possible. The SEDS Coordinator attaches a SEDS cover sheet with Sections 1 and 2 completed and sends a copy of the Report and cover sheet to the SEDS Team, the SEDS Team Leader, the appropriate Project Leader (if not the SEDS Team Leader), and the Administrator of the repository in which the SEDS Reports are being documented. The Repository Administrator places the Report in the repository with an 'o' prefix (oxxx.txt) naming convention to denote that the Report is open.

### 3.1.3. Processing a SEDS Report for an Implementors' Agreement

[To Be Determined]

### 3.2 Consideration of SEDS Reports as Technical Corrigenda and Amendments

Each SEDS Team member initially determines whether s/he is qualified to process the SEDS Report. The SEDS Team, under the direction of the SEDS Team Leader, then makes an initial review of the SEDS Report and accepts or rejects it.

After the initial review of a SEDS Report, the SEDS Team may reject a Report for the following reasons:

- a) Insufficient information received;
- b) Additional clarification required;
- c) Submission is outside current scope of enhancements or discrepancies to IS 10303 parts; or,
- d) Enhancement or discrepancy already identified by previous SEDS Report submission.

If the SEDS Team rejects the SEDS Report, the SEDS Team Leader completes the item in the Response Information Section (Section 3) titled "If Rejected, Reason:" and returns the Report to the SEDS Coordinator. The SEDS Team must include sufficient information about the reason(s) for rejection so that a reader unfamiliar with the subject matter can clearly understand the decision reached by the SEDS Team.

If the SEDS Team accepts the SEDS Report, it notifies the SEDS Coordinator and begins processing the Report.

Whether the Report is accepted for resolution or rejected, the SEDS Coordinator sends an email or FAX message to the person submitting the Report and the appropriate national body, stating the Report has been accepted for processing or rejected and include an explanation. The SEDS Coordinator notifies the Repository Administrator to enter the interim status in the

DRAFT/19-4-95, N308

repository if accepted for processing, and to close the SEDS Report by noting the SEDS Report in the repository with the prefix 'c' (cxxx.txt).

If the SEDS Report is accepted for processing, each member of the SEDS Team develops a proposed response as a technical corrigendum or amendment, and sends it to every other member of the SEDS Team. This procedure may be bypassed if the SEDS Report can be discussed by the SEDS Team at a meeting that falls within the appropriate time period for review.

Following consideration of the proposed responses received from the SEDS Team members, the SEDS Team Leader prepares a single response by completing the appropriate items in the Response Information Section (Section 3) of the Report and transmitting it with a copy of the original SEDS Report to the SEDS Coordinator and the members of the SEDS Team.

Within this response, the SEDS Team Leader includes a statement of how the response is to be processed. If the response has resulted in the developing material that is proposed for processing as a technical corrigendum or an amendment pertaining to the final text, that material is attached to the SEDS Report. The SEDS Coordinator transmits the response, including attachments, to the TC184/SC4 Secretariat and notifies the Repository Administrator to enter the interim status in the repository.

#### 4. Reviewing SEDS Reports for Technical Corrigenda and Amendments

##### 4.1 No Future Action Required

If the response to a SEDS Report has not resulted in material that is to be processed as a technical corrigendum or amendment, the SEDS Coordinator circulates the SEDS Report and the response to the P-Members for information, attaching a new SEDS cover sheet with a new document number and the appropriate items in the Follow-up Information Section (Annex A, Section 4) completed.

##### 4.2 Further Study Required

If consideration of a SEDS Report by a SEDS Team results in recommending that further study is required at the Project level, the SEDS Coordinator circulates the SEDS Report and this recommendation to the Working Group (WG) Conveners with a new cover sheet and the appropriate items in the Follow-up Information Section (Annex A, Section 4) completed. The SEDS Coordinator also advises the ISO TC184/SC4 Chair and Secretariat

DRAFT/19-4-95, N308

of such action, and requests the Repository Administrator note the interim status in the repository. The recommendation(s) resulting from the WG Conveners' review is also noted in Annex A, Section 4. The SEDS Coordinator processes the SEDS Report as recommended by the WG Conveners and prescribed in these procedures, Sections 3 and 4.

#### 4.3 Major Change Required

If the response to a SEDS Report has resulted in material that is to be processed as a technical corrigendum or an amendment to an IS document, the SEDS Coordinator shall submit the SEDS Report with the appropriate items in the Follow-up Section (Section 4) of the cover sheet completed, the resolution of comments, recommended action, and any appended material to the TC184/SC4 Secretariat. Recommended action to the Secretariat is to process: (1) the recommended amendment through ISO TC184/SC4 as a New Work Item (NWI), or (2) a technical corrigendum for ballot approval by ISO TC184/SC4 P-members. The ISO TC184/SC4 Chair will hold a three-month review and ballot period by TC184/SC4 P-members to review the recommended technical corrigendum. Once the Secretariat begins processing an amendment as a NWI, the SEDS Report is closed. The SEDS Coordinator notifies the Repository Administrator who changes the prefix of the Report on the repository to 'c' (cxxx.txt) to denote the SEDS Report is closed.

Upon completing the three-month technical corrigendum review, the SEDS Coordinator circulates the results and any comments received to the members of the SEDS Team. Depending on the outcome of the ballot, the SEDS Coordinator also takes action as per the following sections (below). In all cases, the appropriate items in the Follow-up Information Section of the cover sheet shall be completed to include action required by the recipients.

##### 4.3.1 No Comments or Disapproval Votes Submitted

If the ISO TC184/SC4 P-members have approved the recommendation either explicitly by casting a supporting vote or implicitly by providing no comments or no disapproval ballots, ISO TC184/SC4 Secretariat informs the SEDS Coordinator who notifies the Repository Administrator who changes the prefix of the Report on the repository to 'c' (cxxx.txt) to denote the SEDS Report is closed.

Upon accumulating several technical corrigenda for any given IS part, the ISO TC184/SC4 Secretariat notifies the ISO TC184/SC4 Chair and proposes the submission of the cumulative technical corrigenda be forwarded to the ISO Central Office for

publication. The TC184/SC4 Secretariat distributes a copy of the transmittal letter to ISO TC184/SC4 P-members and retains a copy for information.

#### 4.3.2 Minor Comments Received

If the general results of the TC184/SC4 review were positive, but some comments were received, the ISO TC184/SC4 Secretariat forwards the comments to the SEDS Coordinator, who in turn, forwards to the SEDS Team Leader for review. The SEDS Team Leader, in conjunction with the SEDS Team members as appropriate, prepares responses to the comments and returns them to the SEDS Coordinator, together with the reviewed text of the draft modification, if any change has resulted from the review. The SEDS Coordinator circulates the revised text and disposition of comments, reports to the ISO TC184/SC4 Chair the status, and proceeds with the submittal to the TC184/SC4 Secretariat for processing as per 4.3.1.

#### 4.3.3 Major Negative Comments Received

If the results of the TC184/SC4 review are not positive, the SEDS Coordinator distributes the results to the SEDS Team to consider. The SEDS Team prepares a recommendation on further action to be taken, and forwards it to the SEDS Coordinator who in turn, completes Annex A, Section 4 and forwards to ISO TC184/SC4 Chair for recommended action. The ISO TC184/SC4 Chair can either close the SEDS Report or request the SEDS Coordinator form a new SEDS Team and begin the process again.

### 5. Responding to SEDS Reports

The SEDS Coordinator produces a summary of all SEDS Reports for each ISO meeting. The Report is available by on-line access to the repository or in hard copy. Related problems are cross-referenced. When final action on the SEDS Report is completed, the SEDS Coordinator notifies the Repository Administrator who changes the SEDS Report prefix naming convention to 'c' (cxxx.txt), to denote the SEDS Report has closed and no additional action will occur.



## ANNEX A -- Explanation of the SEDS Report:

The SEDS Report is divided into five sections:

1. General Information
2. Enhancement and Discrepancy Information
3. Response Information
4. Follow-up Information
5. Filing Information

This allows all information to be logically divided on one Report.

### Section 1. General Information

The General Information Section is completed by the SEDS Coordinator and contains:

- the title of the issue;
- the SEDS Report issue number (The number of the International Standard against which the Report is filed, a hyphen, the part number, a solidus (/), and a sequentially assigned number; e.g. 10303-44/006);
- the date the Report is received by the SEDS Coordinator;
- the names of the members of the SEDS Team and the SEDS Team Leader responsible for the work:
  - Open (initial status; the Report is being reviewed by the SEDS Coordinator, SEDS Team, or Implementors' Forum);
  - Interim (there is a temporary fix; the SEDS Team has made an initial response to the issue;
  - Resolution (no change, technical corrigendum, or amendment required);
  - Ballot (indicates proposed solution requires balloting by P-members);
  - Closed (issue has been incorporated into the standard or closed for other reason).

### Section 2. Enhancement and Discrepancy Information

The Enhancement and Discrepancy Information Section is completed by the person submitting the SEDS Report and contains:

- the name, work and email address, phone and fax numbers of author of the Report;
- the number of the part and clause against which the issue is raised;  
other parts affected by the issue;

DRAFT/19-4-95, N308

- a detailed description of the problem;
- any conditions under which the issue was discovered;
- a proposed solution (options);
- any additional notes.

This information will be used as a request for authorization of work to be done.

### Section 3. Response Information

The Response Information Section is completed by the SEDS Team Leader that processes the SEDS Report and contains:

- the date the issue was received by the SEDS Team;
- the rationale, if the Report was rejected;
- the proposed solution;
- any related issues;
- any comments.

### Section 4. Follow-up Information

The Follow-up Information Section is completed by the SEDS Coordinator and contains:

- information on how the response is to be implemented (as an erratum or technical corrigendum to the final text; or as an amendment) and by whom;
- a notice that the Report has been rejected and future action planned, if any.

When an issue has been resolved and all actions associated with the SEDS Report complete, the SEDS Coordinator notifies the Repository Administrator who changes the prefix of the Report on the repository to 'c' (cxxx.txt) to denote the SEDS Report is closed.

### Section 5. Filing Information

The Filing Information Section contains directions for filing a SEDS Report. This information is given as part of the Addendum to this document.

## ANNEX B -- STANDARD ENHANCEMENT AND DISCREPANCY REPORT TEMPLATE

### Section 1. GENERAL INFORMATION (completed by SEDS Coordinator):

SEDS Report Issue Number:  
Date Submitted:  
Status and date:  
SEDS Team Leader:  
SEDS Team Members:

### Section 2. ENHANCEMENT AND DISCREPANCY INFORMATION (completed by author of SEDS Report):

Author:  
Submitted by:  
Part/Clause Affected by the Issue:  
Other Parts Affected by the Issue:  
Problem Description:  
Conditions Under Which the Issue Was Discovered:  
Proposed Solution (Optional):  
Additional Notes:

### Section 3. RESPONSE INFORMATION (completed by SEDS Team Leader):

Accepted/Rejected (date):  
If Accepted, Resolution:  
If Rejected, Reason:  
Solution:  
Comments:

### Section 4. FOLLOW-UP INFORMATION (completed by SEDS Coordinator):

Magnitude of Change:  
No Further Action Required:  
Action Required by SEDS Coordinator:  
Action Required by WG Conveners:  
Action Required by P-members:  
Action Required by Editing Committee:  
Action Required by TC184/SC4:  
Result of Required Action:

### Section 5. FILING INFORMATION (for use by the national body of the source of the SEDS Report):

Filing of all SEDS Reports will be done by the national body and sent to the ISO TC184/SC4 Secretariat. The attached addendum provides current information for this process.

DRAFT/19-4-95, N308

If submitting a SEDS Report by regular mail, include an electronic ASCII version of the Report.

**Addendum to SEDS Reporting Process:**

The current ISO TC184/SC4 Secretariat position is held by:

National Institute of Standards and Technology (NIST)  
c/o E. Trager  
Building 220, A127  
Gaithersburg, MD 20899  
USA

email: trager@cme.nist.gov  
phone: 301-975-3982  
fax: 301-258-9749

The current repository system the ISO TC184/SC4 Secretariat uses to manage SEDS reporting data is SOLIS --- the STEP On-Line Information Service. The SOLIS Administrator serves as the SEDS Repository Administrator in the context of these procedures. Information regarding access to SOLIS can be acquired through the ISO TC184/SC4 Secretariat.

It is not expected the SEDS Coordinator will be a direct employee of the ISO TC184/SC4 Secretariat staff, and the Secretariat is currently looking for national nominations to fulfil the responsibilities of the SEDS Coordinator.

**FILING INFORMATION (for use by author of SEDS Report):**

Submit by email to:	sed@cme.nist.gov
Submit by regular mail to:	SEDS
	NIST
	Building 220, Room A127
	Gaithersburg, MD 20899
	USA

**SEDS Report Processing Time**

It is recognized and appreciated that the majority of resources contributing to processing a SEDS Report are voluntary. Therefore, the following is simply a recommended guideline for processing any given SEDS Report.

Upon receipt of a SEDS Report at the ISO TC184/SC4 Secretariat, within:

5 days	SEDS Coordinator determines whether it is a minor editorial change or requires SEDS Team review.
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**DRAFT/19-4-95, N308**

- 10 days SEDS Coordinator completes minor editorial change processing or develops SEDS Team.
- 5 days SEDS Team members determine whether they are personally qualified to be a member of the SEDS Team.
- 5 days Initial review by SEDS Team determines whether to accept or reject the SEDS Report.
- 45 days If SEDS Report is accepted for processing, SEDS Team develops proposed response/recommendation and sends it to every other member of the SEDS Team.
- 30 days Unless initial review indicates no immediate change could cause unsafe application of the IS, SEDS Team Leader prepares a single response and transmits the response to the SEDS Coordinator and members of the SEDS Team.
- 120 days SEDS Coordinator, working with the ISO TC184/SC4 Chair and Secretariat, processes the SEDS Report through ISO TC184/SC4.